

SYSTEM AND MEETHOD FOR UNDERWATER OBJECT DETECTION WITH LAW ENFORCEMENT ALERT AND EXTERNAL AGENCY NOTIFICATION**DOCUMENT ID DATE PUBLISHED**

US 20230177417 A1 2023-06-08

INVENTOR INFORMATION

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17/457566 2021-12-03

US CLASS CURRENT:[705/7.13](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	G 06 T 7/70	2017-01-01
CPCI	G 06 Q 50/26	2013-01-01
CPCI	G 08 B 21/18	2013-01-01
CPCI	G 06 T 7/50	2017-01-01
CPCI	G 06 V 10/74	2022-01-01
CPCI	G 06 V 20/05	2022-01-01
CPCI	G 06 V 20/17	2022-01-01
CPCI	G 06 V 20/52	2022-01-01
CPCI	H 04 Q 9/00	2013-01-01
CPCI	G 06 T 7/62	2017-01-01
CPCI	G 06 V 20/13	2022-01-01
CPCI	G 06 Q 10/06311	2013-01-01
CPCA	H 04 Q 2209/40	2013-01-01
CPCA	G 06 T 2207/30232	2013-01-01
CPCA	G 06 T 2207/10032	2013-01-01

KWIC Hits

RESCUE METHOD AND SYSTEM FOR MAN OVERBOARD WITH REMOTE MONITORING**DOCUMENT ID DATE PUBLISHED**

US 20230174205 A1 2023-06-08

INVENTOR INFORMATION

NAME	CITY	STATE	ZIP CODE	COUNTRY
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17/549562 2021-12-13

FOREIGN APPLICATION PRIORITY DATA

COUNTRY	APPLICATION NO	APPLICATION DATE
TW	110145905	2021-12-08

US CLASS CURRENT:[340/573.6,340/573.1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	B 63 C 9/0005	2013-01-01
CPCI	B 63 C 9/00	2013-01-01
CPCA	B 63 G 2008/004	2013-01-01
CPCA	B 63 C 2009/0017	2013-01-01

KWIC Hits**Abstract**

The present invention proposes a rescue system and method for man overboard with remote monitoring, which is implemented by a rescue system consisted of an onboard processing unit, a distress signal module, an unmanned rescue vehicle, an autonomous ship, a communication module, and a shore control center (SCC). The technical effect of the present invention is that when a person falls into the water, the unmanned rescue vehicle can automatically locate and monitor the falling target immediately, and the shore control center (SCC) can accurately locate the relative position between the unmanned rescue vehicle and the ship where the person falls. Thereby, the shore control center (SCC) can control the rescue process throughout the entire process and release rescue device for rescue.

Background/Summary

TECHNICAL FIELD

Beacon Location Estimation**DOCUMENT ID DATE PUBLISHED**

US 20230025224 A1 2023-01-26

INVENTOR INFORMATION

NAME	CITY	STATE	ZIP CODE	COUNTRY
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ASSIGNEE INFORMATION

NAME	CITY	STATE	ZIP CODE	COUNTRY
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	TYPE CODE			
	05			

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17/380050 2021-07-20

US CLASS CURRENT:[1/1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	G 01 S 5/0231	2013-01-01
CPCI	G 01 S 19/071	2019-08-01
CPCI	G 01 S 19/05	2013-01-01
CPCI	G 01 S 5/0294	2013-01-01
CPCI	G 01 S 19/02	2013-01-01
CPCI	G 01 S 19/17	2013-01-01
CPCI	G 01 S 5/0009	2013-01-01
CPCA	G 01 S 2205/006	2013-01-01
CPCA	G 01 S 2205/06	2020-05-01

KWIC Hits**Abstract**

A method and system for estimation of the current location of a remote radio beacon, at a mobile device, based on two historical positions thereof provided via at least two satellite relays and one base station, particularly usable for Search and Rescue. A beacon is configured to periodically transmit short RF signals, relayed by a first satellite payload to a base station, at which the position of the beacon is resolved; then, the base station transmits a message, relayed by a second satellite payload and detectable by a mobile device, encoding two previous positions of the beacon, stamped with time tags. Finally, the mobile device decodes the information about said two previous positions of the beacon, and accordingly estimates the current position of the beacon, accounting for possible different time references.

FLIGHT-ENABLED SIGNAL BEACON**DOCUMENT ID DATE PUBLISHED**

US 20220144429 A1 2022-05-12

INVENTOR INFORMATION

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Lavoie; Theodore	Novato	CA	N/A	US
Ernst; Nathan	Dexter	MI	N/A	US
Alla; Vivek Reddy	Ypsilanti	MI	N/A	US
Gorski; Michael	Grass Lake	MI	N/A	US
Alford; Casey	Ann Arbor	MI	N/A	US
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Kent; Timothy	St. Clair	MI	N/A	US
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Massey; Donald	Chicago	IL	N/A	US

APPLICATION NO DATE FILED

17/520569 2021-11-05

DOMESTIC PRIORITY (CONTINUITY DATA)

us-provisional-application US 63110482 20201106

US CLASS CURRENT:[1/1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	G 05 D 1/101	2013-01-01
CPCI	G 01 C 21/16	2013-01-01
CPCI	G 05 D 1/0808	2013-01-01
CPCI	G 08 G 5/0026	2013-01-01
CPCI	G 01 S 19/18	2013-01-01
CPCI	B 64 C 27/72	2013-01-01
CPCI	B 64 U 30/20	2023-01-01
CPCI	B 64 C 11/28	2013-01-01
CPCI	B 64 U 10/10	2023-01-01
CPCI	G 08 G 5/0056	2013-01-01
CPCI	G 08 G 5/0073	2013-01-01
CPCI	G 05 D 1/12	2013-01-01
CPCI	B 64 C 27/57	2013-01-01
CPCI	B 64 C 39/024	2013-01-01
CPCI	G 08 G 5/0069	2013-01-01
CPCI	G 06 T 7/70	2017-01-01
CPCI	B 64 C 27/39	2013-01-01
CPCI	B 64 C 11/48	2013-01-01
CPCI	B 64 D 47/02	2013-01-01
CPCI	G 08 G 5/0013	2013-01-01

METHOD AND APPARATUS FOR WATER SPORTS AUTOMATION AND ENHANCED SITUATIONAL AWARENESS**DOCUMENT ID DATE PUBLISHED**

US 20220089259 A1 2022-03-24

INVENTOR INFORMATION

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APPLICATION NO DATE FILED

17/481309 2021-09-22

DOMESTIC PRIORITY (CONTINUITY DATA)

us-provisional-application US 63081489 20200922

us-provisional-application US 63218030 20210702

US CLASS CURRENT:[1/1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	B 63 C 9/0005	2013-01-01
CPCI	B 63 B 34/60	2020-02-01
CPCI	B 63 H 21/21	2013-01-01
CPCI	B 63 B 34/70	2020-02-01
CPCI	G 05 D 1/0055	2013-01-01
CPCA	B 63 C 2009/0017	2013-01-01

KWIC Hits**Abstract**

An objective of the present invention is to provide a system to sense immersion of a participant into water. The system comprises a smart flag and an alarm device of a watercraft, and an FOB device of a participant. The smart flag, the alarm, and the FOB device are wirelessly connected to each other. The FOB device detects the immersion of the participant in the water. The smart flag is automatically deployed based on the detected immersion. The alarm device is automatically turned ON creating an alarm indicating an SOS signal. When the participant gets submerged in the water, the communication is ceased, thus initiating the flag to go up automatically and alarm a captain of the watercraft. Deployment of the flag lets surrounding watercraft to know that the participant is in the water.

Background/Summary**CROSS-REFERENCE TO RELATED PATENT DOCUMENTS**

SEQUESTERING BIOMASS IN WATER**DOCUMENT ID DATE PUBLISHED**

US 20220080480 A1 2022-03-17

INVENTOR INFORMATION

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APPLICATION NO DATE FILED

17/414166 2019-12-23

DOMESTIC PRIORITY (CONTINUITY DATA)

us-provisional-application US 62870428 20190703

us-provisional-application US 62820088 20190318

us-provisional-application US 62783740 20181221

US CLASS CURRENT:[1/1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	B 63 B 35/32	2013-01-01
CPCI	B 09 B 1/002	2013-01-01
CPCI	A 01 D 44/00	2013-01-01

KWIC Hits**Abstract**

Buoyant matter, and particularly biomass such as seaweed, is sequestered deep in a body of water, fey causing the matter to lose it buoyancy and sink and remain sunk for an extended period. In some examples, the matter is pumped to below a depth at which is loses its natural buoyancy as a result of the ambient water pressure resulting in it naturally sinking to the bottom.

Background/Summary**CROSS-REFERENCES TO RELATED APPLICATIONS**

[0001] This application claims the benefit of the following U.S. Provisional Applications, which are incorporated herein by reference: No. 62/783,740, filed Dec. 21, 2018; No. 62/820,088 filed Mar. 18, 2019; and No. 62/870,428 filed Jul. 3, 2019.

BACKGROUND OF THE INVENTION

MAN OVER BOARD DETECTION SYSTEM**DOCUMENT ID DATE PUBLISHED**

US 20220058932 A1 2022-02-24

INVENTOR INFORMATION

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MICHAEL; Alexis	Limassol	N/A	N/A	CY
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APPLICATION NO DATE FILED

17/415538 2019-12-16

FOREIGN APPLICATION PRIORITY DATA

COUNTRY	APPLICATION NO	APPLICATION DATE
EP	18212924.7	2018-12-17

US CLASS CURRENT:[1/1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	G 08 B 29/188	2013-01-01
CPCI	B 63 C 9/0005	2013-01-01
CPCI	G 08 B 21/08	2013-01-01

KWIC Hits**Abstract**

A Man Over Board (MOB) system includes sensor units located around a periphery of a vessel, an interconnector unit communicatively coupled with the plurality of sensor units and configured to receive data from the sensors, a data fusion processing unit, and a control station. The data fusion processing unit is configured to receive the data from the sensor units via the interconnector unit, compile the data from the sensor units, and trigger a MOB warning based on the compiled data. The control station is located at a bridge of the vessel and configured to display the MOB warning and at least a portion of the compiled data from the sensor units via a video verification interface and receive verification input from a human operator via the video verification interface to confirm a MOB event.

Background/Summary**CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] The present application is the U.S. national stage entry under 35 U.S.C. § 371 of international patent application PCT/EP2019/085419, filed Dec. 16, 2019, entitled "MAN OVER BOARD

Overboard Tracking Patch**DOCUMENT ID DATE PUBLISHED**

US 20200220248 A1 2020-07-09

INVENTOR INFORMATION

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APPLICATION NO DATE FILED

16/734116 2020-01-03

DOMESTIC PRIORITY (CONTINUITY DATA)

us-provisional-application US 62788080 20190103

US CLASS CURRENT:[1/1](#)**CPC CURRENT**

TYPE	CPC	DATE
CPCI	H 01 Q 9/0407	2013-01-01
CPCI	H 01 Q 1/36	2013-01-01
CPCI	H 01 Q 1/2225	2013-01-01
CPCI	B 63 C 9/20	2013-01-01
CPCI	H 01 Q 1/24	2013-01-01
CPCI	H 01 Q 1/40	2013-01-01
CPCI	H 01 Q 1/273	2013-01-01
CPCI	B 63 C 9/0005	2013-01-01
CPCA	B 63 C 2009/0017	2013-01-01
CPCA	B 63 C 9/13	2013-01-01
CPCA	B 63 B 2201/20	2013-01-01
CPCA	B 63 C 9/082	2013-01-01
CPCA	B 63 C 9/11	2013-01-01
CPCA	B 63 B 2201/12	2013-01-01

KWIC Hits**Abstract**

An overboard tracking patch is an apparatus which increases the visibility and tracking capabilities of Personal Flotation Devices (PFDs) for more efficient tracking of overboard individuals. In a passive embodiment, the apparatus includes an outer layer, an intermediate layer, an attachment layer, and a processor. The outer layer increases the visibility of PFDs during both daytime and nighttime conditions. The intermediate layer provides radio identification capabilities for the remote tracking of PFDs using search radars. The attachment layer enables users to attach the present invention to a